

Docket No. 0083-0865-2

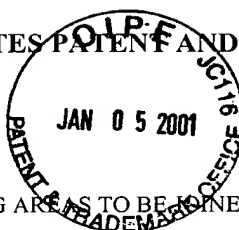
IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

IN RE APPLICATION OF: Masashi GOTOH, et al.

SERIAL NO: 09/119,626

FILED: July 21, 1998

FOR: CIRCUIT BOARD HAVING BONDING AREAS TO BE JOINED WITH BUMPS BY ULTRASONIC BONDING



GAU: 2841

EXAMINER: GAFFIN, J.

GP 2841  
#2841  
IDS  
1/23/01  
P. Ann Jones

**INFORMATION DISCLOSURE/RELATED CASE STATEMENT UNDER 37 CFR 1.97**

ASSISTANT COMMISSIONER FOR PATENTS  
WASHINGTON, D.C. 20231

SIR:

Applicant(s) wish to disclose the following information.

**REFERENCES**

- The applicant(s) wish to make of record the references cited in the European Search Report listed on the attached form PTO-1449. Copies of the listed references are attached, where required, as are either statements of relevancy or any readily available English translations of pertinent portions of any non-English language references.
- A check is attached in the amount required under 37 CFR §1.17(p).

**RELATED CASES**

- ☐ Attached is a list of applicant's pending application(s) or issued patent(s) which may be related to the present application. A copy of the patent(s), together with a copy of the claims and drawings of the pending application(s) is attached along with PTO 1449.
- ☐ A check is attached in the amount required under 37 CFR §1.17(p).

**CERTIFICATION**

- Each item of information contained in this information disclosure statement was cited in a communication from a foreign patent office in a counterpart foreign application not more than three months prior to the filing of this statement.
- ☐ No item of information contained in this information disclosure statement was cited in a communication from a foreign patent office in a counterpart foreign application or, to the knowledge of the undersigned, having made reasonable inquiry, was known to any individual designated in 37 CFR §1.56(c) more than three months prior to the filing of this statement.

**DEPOSIT ACCOUNT**

- Please charge any additional fees for the papers being filed herewith and for which no check is enclosed herewith, or credit any overpayment to deposit account number 15-0030. A duplicate copy of this sheet is enclosed.

Respectfully submitted,

OBLON, SPIVAK, McCLELLAND,  
MAIER & NEUSTADT, P.C.

Gregory J. Maier

Registration No. 25,599

Christopher D. Ward

Registration No. 41,367

TECHNOLOGY CENTER 2800

JAN 11 2001

RECEIVED



**22850**

Tel. (703) 413-3000  
Fax. (703) 413-2220  
(OSMMN 10/98)

GJM:CDW:brf

01/08/2001 HNDOR1 00000096 09119626

01 FC:126

100.00 DP



P.B.5818 - Patentaan 2  
2280 HV Rijswijk (ZH)  
☎ +31 70 340 2040  
TX 31651 epo nl  
FAX +31 70 340 3016

Europäisches  
Patentamt

Zweigstelle  
in Den Haag  
Recherchen-  
abteilung

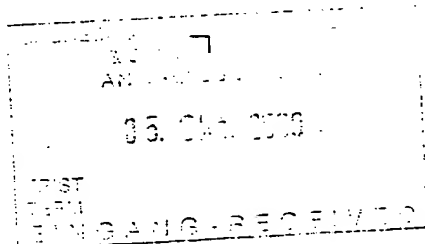
European  
Patent Office

Branch at  
The Hague  
Search  
division

Office européen  
des brevets

Département à  
La Haye  
Division de la  
recherche

Copy



Grünecker, Kinkeldey,  
Stockmair & Schwanhäusser  
Anwaltssozietät  
Maximilianstrasse 58  
80538 München  
ALLEMAGNE

Datum/Date

05.10.00

Zeichen/Ref./Réf.

EP15550-045/iw

Anmeldung Nr./Application No./Demande n°/Patent Nr./Patent No./Brevet n°.

98113678.1-2214-

Anmelder/Applicant/Demandeur/Patentinhaber/Propriétaire/Titulaire

TDK Corporation

## COMMUNICATION

The European Patent Office herewith transmits as an enclosure the European search report for the above-mentioned European patent application.

If applicable, copies of the documents cited in the European search report are attached.

☒ Additional set(s) of copies of the documents cited in the European search report is (are) enclosed as well.

The following specifications given by the applicant have been approved by the Search Division:

☒ abstract

☒ title

☐ The abstract was modified by the Search Division and the definitive text is attached to this communication.

The following figure will be published together with the abstract:

1

## REFUND OF THE SEARCH FEE

If applicable under Article 10 Rules relating to fees, a separate communication from the Receiving Section on the refund of the search fee will be sent later.





European Patent  
Office

# EUROPEAN SEARCH REPORT

Application Number  
EP 98 11 3678

| DOCUMENTS CONSIDERED TO BE RELEVANT   |   |   |   |
|---|---|---|---|
| Category  | Citation of document with indication, where appropriate, of relevant passages   | Relevant to claim                                     | CLASSIFICATION OF THE APPLICATION (Int.Cl.6)    |
| ① A ✓   | PATENT ABSTRACTS OF JAPAN<br>vol. 1996, no. 02,<br>29 February 1996 (1996-02-29)<br>& JP 07 263849 A (MITSUBISHI ELECTRIC CORP), 13 October 1995 (1995-10-13)<br>* abstract * | 1,4   | H05K1/11<br>H05K3/32<br>H01L21/60<br>H01L23/498 |
| ② A ✓   | US 5 793 098 A (UCHIDA HIROYUKI)<br>11 August 1998 (1998-08-11)<br>* figures 3,4,7,9 *<br>& JP 09 148487 A (...)<br>6 June 1997 (1997-06-06)                                  | 1,4   |   |
| ③ A ✓   | US 5 446 244 A (MORI AKIHISA ET AL)<br>29 August 1995 (1995-08-29)  |   |   |
| ④ A ✓   | PATENT ABSTRACTS OF JAPAN<br>vol. 003, no. 106 (E-135),<br>7 September 1979 (1979-09-07)<br>& JP 54 083374 A (HITACHI LTD),<br>3 July 1979 (1979-07-03)                       |   |   |
|   |   |   | TECHNICAL FIELDS SEARCHED (Int.Cl.6)            |
|   |   |   | H01L<br>H05K                                    |
| The present search report has been drawn up for all claims  |   |   |   |
| Place of search<br>THE HAGUE  |   | Date of completion of the search<br>26 September 2000 | Examiner<br>Prohaska, G                         |
| CATEGORY OF CITED DOCUMENTS   |   |   |   |
| X : particularly relevant if taken alone<br>Y : particularly relevant if combined with another document of the same category<br>A : technological background<br>O : non-written disclosure<br>P : intermediate document<br>T : theory or principle underlying the invention<br>E : earlier patent document, but published on, or after the filing date<br>D : document cited in the application<br>L : document cited for other reasons<br>& : member of the same patent family, corresponding document |   |   |   |

copy

**ANNEX TO THE EUROPEAN SEARCH REPORT  
ON EUROPEAN PATENT APPLICATION NO.**

EP 98 11 3678

This annex lists the patent family members relating to the patent documents cited in the above-mentioned European search report. The members are as contained in the European Patent Office EDP file on  
The European Patent Office is in no way liable for these particulars which are merely given for the purpose of information.

26-09-2000

| Patent document<br>cited in search report | Publication<br>date | Patent family<br>member(s)   | Publication<br>date      |
|---|---------------------|------------------------------|--------------------------|
| JP 07263849 A                             | 13-10-1995          | NONE                         |                          |
| US 5793098 A                              | 11-08-1998          | JP 2755239 B<br>JP 9148487 A | 20-05-1998<br>06-06-1997 |
| US 5446244 A                              | 29-08-1995          | NONE                         |                          |
| JP 54083374 A                             | 03-07-1979          | NONE                         |                          |

|  |    |  |          |   |                                |                          |                               |
|--|----|--|----------|---|--------------------------------|--------------------------|-------------------------------|
| Form PTO 1449<br>(Modified)  |    | U.S. DEPARTMENT OF COMMERCE<br>PATENT AND TRADEMARK OFFICE |          | ATTY DOCKET NO.<br>0083-0865-2  |                                | SERIAL NO.<br>09/119,626 |                               |
| LIST OF REFERENCES CITED BY APPLICANT<br><div style="text-align: center; border: 1px solid black; border-radius: 50%; padding: 10px; width: fit-content; margin: 0 auto;">           OIPE<br/>JAN 05 2001<br/>PATENT &amp; TRADEMARK OFFICE         </div> |    |  |          | APPLICANT<br>Masashi GOTOH, et al. <span style="float: right;">#21</span> |                                |                          |                               |
|  |    |  |          | FILING DATE<br>July 21, 1998  |                                | GROUP<br>2841            |                               |
| <b>U.S. PATENT DOCUMENTS</b>   |    |  |          |   |                                |                          |                               |
| EXAMINER<br>INITIAL  |    | DOCUMENT<br>NUMBER   | DATE     | NAME  | CLASS                          | SUB<br>CLASS             | FILING DATE<br>IF APPROPRIATE |
| KE   | AA | 5,793,098  | 8/11/98  | Uchida  | —                              | —                        |                               |
| KE   | AB | 5,446,244  | 8/29/95  | Kawanabe, et al.  | —                              | —                        |                               |
|  | AC |  |          |   |                                |                          |                               |
|  | AD |  |          |   |                                |                          |                               |
|  | AE |  |          |   |                                |                          |                               |
|  | AF |  |          |   |                                |                          |                               |
|  | AG |  |          |   |                                |                          |                               |
|  | AH |  |          |   |                                |                          |                               |
|  | AI |  |          |   |                                |                          |                               |
|  | AJ |  |          |   |                                |                          |                               |
|  | AK |  |          |   |                                |                          |                               |
|  | AL |  |          |   |                                |                          |                               |
|  | AM |  |          |   |                                |                          |                               |
|  | AN |  |          |   |                                |                          |                               |
| <b>FOREIGN PATENT DOCUMENTS</b>  |    |  |          |   |                                |                          |                               |
|  |    | DOCUMENT<br>NUMBER   | DATE     | COUNTRY   | TRANSLATION<br>YES NO          |                          |                               |
| KE   | AO | 54083374   | 7/3/79   | JAPAN (English Abstract Only)   | ✓                              |                          |                               |
| KE   | AP | 07263849   | 10/13/95 | JAPAN (English Abstract Only)   | ✓                              |                          |                               |
|  | AQ |  |          |   |                                |                          |                               |
|  | AR |  |          |   |                                |                          |                               |
|  | AS |  |          |   |                                |                          |                               |
|  | AT |  |          |   |                                |                          |                               |
|  | AU |  |          |   |                                |                          |                               |
|  | AV |  |          |   |                                |                          |                               |
| <b>OTHER REFERENCES (Including Author, Title, Date, Pertinent Pages, etc.)</b>   |    |  |          |   |                                |                          |                               |
|  | AW | <div style="font-size: 4em; line-height: 1;">f</div>       |          |   |                                |                          |                               |
|  | AX |  |          |   |                                |                          |                               |
|  | AY |  |          |   |                                |                          |                               |
|  | AZ |  |          |   |                                |                          |                               |
| Examiner <i>K. Melton</i>  |    |  |          |   | Date Considered <i>3/10/01</i> |                          |                               |
| *Examiner: Initial if reference is considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.               |    |  |          |   |                                |                          |                               |